Lloyd's Register

Rules and Regulations for the Classification of Ships, July 2009

Notice No. 3

Effective Date of Latest Amendments:

See page 1

Issue date: November 2009

RULES AND REGULATIONS FOR THE CLASSIFICATION OF SHIPS, *July 2009*

Notice No. 3

This Notice contains amendments within the following Sections of the *Rules and Regulations for the Classification of Ships, July 2009.* The amendments are effective on the dates shown:

Part	*Chapter*	*Section*	*Effective date*
3	3	4	1 January 2010
3	11	6, 9	1 January 2010
3	12	4	1 January 2010
4	1	8	1 January 2010
4	2	11	1 January 2010
8	2	10	Corrigendum

It will be noted that the amendments also include corrigenda, which are effective from the date of this Notice.

The *Rules and Regulations for the Classification of Ships, July 2009* are to be read in conjunction with this Notice No. 3. The status of the Rules is now:

Rules for Ships	Effective date:	July 2009
Notice No. 1	Effective dates:	1 January 2010 & Corrigenda
Notice No. 2	Effective dates:	1 January 2010 & Corrigenda
Notice No. 3	Effective dates:	1 January 2010 & Corrigendum

Part 3, Chapter 3

Structural Design

Effective date 1 January 2010

■ *Section 4*
Bulkhead requirements

4.7 **Protection of tanks carrying oil fuel,
lubricating oil, vegetable or similar oils**

4.7.7 For vessels which do not comply with the accidental oil fuel outflow performance standard given in MARPOL Annex 1, Regulation 12A-11, oil fuel tanks are to be bounded by double bottom and double side tanks or void spaces such that the distance between the oil fuel tank boundary and the shell plating is not less than that given in Table 3.4.2 and Fig. 3.4.1. For double hull oil tankers where the requirements of Pt 4, Ch 9,1.2.17 conflict with this requirement Pt 4, Ch 9,1.2.17 is to take precedent. Alternatively the accidental oil outflow performance standard specified in MARPOL Annex 1 Regulation 12A may be complied with.

4.7.8 No individual oil fuel tank is to have a capacity greater than 2,500 m³.

4.8 **Watertight tunnels and passageways**

4.8.1 Where a machinery space is situated with a compartment or compartments between it and the after peak bulkhead, the shafting is to be enclosed in a watertight tunnel large enough to permit proper examination and repair of shafting. A sliding watertight door, capable of being operated locally from both sides, is to be provided at the forward end of the tunnel. Consideration may, however, be given to the omission of the watertight door, subject to satisfactory compliance with any relevant statutory requirements. Where two or more shafts are fitted, the tunnels shall be connected by an interconnecting passage. There shall be only one door between the machinery space and the tunnel spaces where two shafts are fitted and only two doors where there are more than two shafts.

Table 3.4.2	Oil fuel tank boundary requirements	
Oil fuel tank capacity (C), m³	Minimum double side width (d_s) metres	Minimum double bottom depth (d_b) metres
$C \geq 5000$	$d_s = 0,5 + \dfrac{C}{20000}$ or $d_s = 2,0$ whichever is the lesser, but not less than 1,0	$d_b = \dfrac{B}{20}$ or $d_b = 2,0$ whichever is the lesser, but not less than 0,76
$600 \leq C < 5000$	$d_s = 0,4 + \dfrac{2,4C}{20000}$ or $d_s = 1,0$ whichever is the greater, *see* Note	$d_b = \dfrac{B}{20}$ or $d_b = 2,0$ whichever is the lesser, but not less than 0,76
$C < 600$	$d_s = 0$	$d_b = 0$
Symbols		
C = the ship's total volume of oil fuel, including that of small oil fuel tanks, in m³, at 98 per cent tank filling d_b = the distance, in metres, between the bottom of the oil fuel tank and the moulded line of the bottom shell plating. In the turn of bilge area and at locations without a clearly defined turn of bilge, the oil fuel tank boundary line shall run parallel to the line of the midship flat bottom as shown in Fig. 3.4.2 d_s = the distance, in metres, between the side of the oil fuel tank and the moulded line of the side shell plating, *see* Fig. 3.4.1		

NOTE
However, for individual tanks with an oil fuel capacity of less than 500 m³ the minimum distance is 0,76 m.
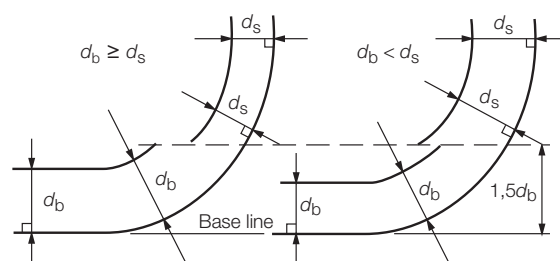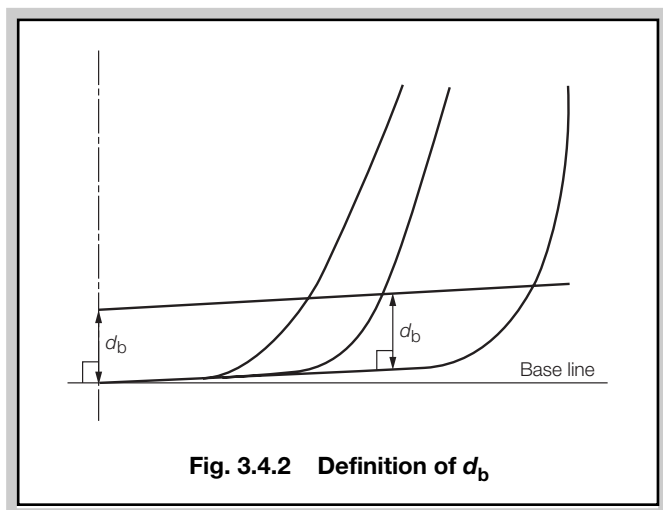

Fig. 3.4.1 Oil fuel tank boundary lines

Fig. 3.4.2   Definition of d_b

Part 3, Chapter 11

Closing Arrangements for Shell, Deck and Bulkheads

Effective date 1 January 2010

■   *Section 6*
Miscellaneous openings

6.6   Small hatchways on exposed fore decks

6.6.10   Escape hatches are to be capable of being opened from either side and are to have a quick-acting type securing device, e.g. one action wheel handle central locking device for latching/unlatching the hatch cover.

■   *Section 9*
Watertight doors in bulkheads below the freeboard deck

9.2   Watertight doors

9.2.6   The frames of vertical watertight doors shall have no groove at the bottom in which dirt might lodge and prevent the door closing properly.

9.2.6 *9.2.7*   Means are to be provided on the navigating bridge to indicate whether the watertight doors are open or closed. A notice is to be affixed to both sides of each such door or hatch cover to the effect that it is not to be left open.

Existing paragraph 9.2.7 has been renumbered 9.2.8.

Part 3, Chapter 12

Ventilators, Air Pipes and Discharges

Effective date 1 January 2010

■ *Section 4*
Scuppers and sanitary discharges

4.1   General

4.1.3   ~~Scuppers and discharges which drain spaces below the freeboard deck, or spaces within intact superstructures or deckhouses on the freeboard deck fitted with efficient weathertight doors, may be led to the bilges in the case of scuppers, or to suitable sanitary tanks in the case of sanitary discharges. Alternatively, they may be led overboard provided that:~~
~~(a)   The freeboard is such that the deck edge is not immersed when the ship heels to 5°, and~~
~~(b)   the scuppers are fitted with means of preventing water from passing inboard in accordance with 4.2.~~

4.1.3   Where the freeboard is such that the freeboard deck edge is immersed when the ship heels 5° or less, scuppers and discharges which drain spaces below the freeboard deck, or spaces within intact superstructures or deckhouses on the freeboard deck fitted with efficient weathertight doors, may be led to the bilges in the case of scuppers or to suitable sanitary tanks in the case of sanitary discharges. Where the freeboard is such that the freeboard deck edge is immersed when the ship heels greater than 5° then they are to be led overboard and fitted with means of preventing water from passing inboard in accordance with 4.2.

Part 4, Chapter 1

General Cargo Ships

Effective date 1 January 2010

■ *Section 8*
Double bottom structure

8.2   General

8.2.3   Small wells constructed in the double bottom, in connection with the drainage arrangements of holds, are not to extend in depth more than necessary. A well extending to the outer bottom, may however, be permitted at the after end of the shaft tunnel of the ship. Other well arrangements (e.g. for lubricating oil under main engines) may be considered provided they give protection equivalent to that afforded by the double bottom. In no case shall the vertical distance from the bottom of such a well to a plane coinciding with the keel line be less than 500 mm for passenger ships and cargo ships other than tankers. Keel line is defined in SOLAS Chpater II-1, Part A, Regulation 1.

8.3   Girders

8.3.1   ~~The~~ For tankers the centre girder is to have a depth of not less than that given by:

d_{DB} $= 28B + 205 \sqrt{T}$ mm

nor less than 650 mm. The centre girder thickness is to be not less than:

t $= (0{,}008 d_{DB} + 4) \sqrt{k}$ mm

nor less than 6,0 mm. The thickness may be determined using the value for d_{DB} without applying the minimum depth of 650 mm.

8.3.2   For cargo ships and passenger ships other than tankers the minimum depth of the centre girder is to be taken as the greater of the following:

(a) d_{DB} $= 28B + 205 \sqrt{T}$ mm

(b) d_{DB} $= 50B$ mm, but need not be taken as greater than 2000 mm

(c) d_{DB} $= 760$ mm

The centre girder thickness is to be not less than:

t $= (0{,}008 d_{DB} + 4) \sqrt{k}$ mm

nor less than 6,0 mm. The thickness may be determined using the value for d_{DB} without applying the minimum depth of 760 mm.

Existing paragraphs 8.3.2 *to* 8.3.9 *have been renumbered* 8.3.3 *to* 8.3.10.

Part 4, Chapter 2

Ferries, Roll on-Roll off Ships and Passenger Ships

Effective date 1 January 2010

■ *Section 11*
Miscellaneous openings

11.2   Openings in main vehicle deck

11.2.2   Scuppers from vehicle or cargo spaces above the bulkhead deck fitted with an approved fixed pressure water spray fire-extinguishing system are to be led ~~inboard to tanks. Alternatively they may be led overboard providing they comply with Pt 3, Ch 12,4.1.3 (a) and (b)~~ directly overboard and are to be fitted with means of preventing water from passing inboard in accordance with Pt 3, Ch 12,4.2.

Part 8, Chapter 2

Ice Operations – Ice Class

CORRIGENDUM

■ *Section 10*
Hull strengthening requirements for navigation in multi-year ice conditions – Ice Classes PC1, PC2, PC3, PC4, PC5, PC6 and PC7

10.14   Framing – Structural stability

(*Part only shown*)
10.14.2   Framing members for which it is not practicable to meet the requirements of 10.14.1 (e.g. load carrying stringers or deep web frames) are required to have their webs effectively stiffened. The scantlings of the web stiffeners are to ensure the structural stability of the framing member. The minimum net web thickness for these framing members is given by:

$$t_{wn} = 2{,}63 \times 10^{-3}\, c_1 \frac{\sigma_y}{5{,}34 + 4\left(\frac{c_1}{c_2}\right)^2}\ \text{mm}$$

$$t_{wn} = 2{,}63 \times 10^{-3}\, c_1 \sqrt{\frac{\sigma_y}{5{,}34 + 4\left(\frac{c_1}{c_2}\right)^2}}\ \text{mm}$$

where
c_1 = $h_w - 0{,}8h$ mm
h_w = web height of stringer/web frame, in mm, *see* Fig. 2.10.5
h = height of framing member penetrating the member under consideration (to be taken as zero if no such framing member is fitted), in mm, *see* Fig. 2.10.5

Cross-References

Section numbering in brackets reflects any Section renumbering necessitated by any of the Notices that update the current version of the Rules for Ships.

Part 4, Chapter 1

8.3.3   *Reference* 8.3.2 *now reads* 8.3.3
(now *8.3.4*)

Part 4, Chapter 2

11.2.2   *Reference* Pt 3, Ch 12,4.1.3(a) and (b) *now reads* Pt 3, Ch 12,4.1.3.

Part 5, Chapter 13

9.1.2   *Reference* Pt 3, Ch 12,4.1.3(a) and (b) *now reads* Pt 3, Ch 12,4.1.3.